

WHAT IS CLAIMED IS:

1. (Original) A precision marking system to place reference markers on an object that comprises:
 - a work surface on which the object is placed;
 - an object locator system to determine the location and orientation of the object and features within the object relative to the work surface;
 - a multiple axis robot, wherein positioning the multiple axis robot is directed by a control system; and
 - at least one end-effector operable coupled to the multiple axis robot to place reference markers on the object, wherein the end-effector further comprises:
 - an ink delivery system;
 - a pulsed valve to regulate the supply of ink from the ink delivery system;
 - a pick shaped stylus operable coupled to the pulsed valve to receive ink from the pulsed valve, and wherein the pick shaped stylus has an internal orifice through which the ink is dispensed from the end-effector and onto the object.
2. (Original) The precision marking system of Claim 1, wherein the ink delivery system further comprises an ink reservoir operably coupled to a positive displacement pump.
3. (Original) The precision marking system of Claim 1, wherein the ink delivery system further comprises a positive pressure pneumatic reservoir delivery system.
4. (Original) The precision marking system of Claim 1, wherein the pick shaped stylus provide radial clearance around the orifice.
5. (Original) The precision marking system of Claim 1, wherein the work surface comprises a shuttle table.

6. (Original) The precision marking system of Claim 5, wherein the shuttle table further comprises a series of vacuum support pins in a predetermined arrangement for a given object.

7. (Original) The precision marking system of Claim 1, wherein the object locator system further comprises a vision end-effector to locate the object within a work envelope.

8. (Original) The precision marking system of Claim 1, wherein the multiple axis robot further comprises a 6-axis gantry robot.

9. (Original) The precision marking system of Claim 1, wherein the reference markers provide alignment information for additional objects to be mechanically coupled to the object.

10. (Original) The precision marking system of Claim 1, wherein the reference markers provide part identification information.

11. (Original) The precision marking system of Claim 1, wherein the reference markers provide assembly information to a user.

12. (Original) The precision marking system of Claim 1, wherein the object further comprises an aircraft understructure.

13. (Original) The precision marking system of Claim 1, wherein the end-effector is oriented to place reference markers on the surface of the object.

14. (Original) The precision marking system of Claim 1, wherein the end-effector is oriented to place reference markers on walls located at an angle to the surface of the object.

15. (Original) The precision marking system of Claim 1, further comprises a calibration system operable to calibrate each end-effector when selected.

16. (Currently Amended) The precision marking system of claim 1, further comprising a storage rack operable to store wherein the end-effector when the end-effector is stored within a storage rack when not operable coupled to the multiple axis robot.

17. (Original) An end-effector to place reference markers on an object that comprises:

a fluid delivery system;

a pulsed valve to regulate the supply of fluids from the fluid delivery system; and

a pick shaped stylus operable coupled to the pulsed valve to receive fluids from the pulsed valve, and wherein the pick shaped stylus has an internal orifice through which the fluids are dispensed from the end-effector and onto the object.

18. (Currently Amended) The end-effector of Claim 17, wherein the fluid ink delivery system further comprises an ink reservoir operably coupled to a positive displacement pump.

19. (Currently Amended) The end-effector of Claim 17, wherein the fluid ink delivery system further comprises a positive pressure pneumatic reservoir delivery system.

20. (Original) The end-effector of Claim 17, wherein the pick shaped stylus provide radial clearance around the orifice.

21. (Original) The end-effector of Claim 17, wherein the end-effector is operably coupled to a multi axis robot within a precision marking system.

22. (Original) The end-effector of Claim 21, wherein the precision marking system further comprises:

a work surface on which the object is placed;

an object locator system to determine the location and orientation of the object and features within the object relative to the work surface; and

the multiple axis robot, wherein positioning the multiple axis robot is directed by a control system.

23. (Original) The end-effector of claim 17, wherein the fluids further comprise inks, paints, epoxy, or adhesives.

Rejections Under 35 USC § 112

Claim 16 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states:

Claim 16 is indefinite since it is unclear whether or not the storage rack is being positively claimed.

With respect to claim 16, the applicant respectfully submits that claim 16 has been amended to positively claim a storage rack when storage rack is operable to store an end-effector when the end-effector is not coupled to the multiple axis robot. Therefore, the applicant respectfully requests that the Examiner withdraw the rejections to claim 16 under 35 USC § 112 and allow claim 16.

The Examiner states that Claims 18 and 19 were objected to because of the following informalities:

In claim 17, Applicant claims a fluid delivery system. However in claims 18 and 19, Applicant recites "the ink delivery system." Examiner assumes that Applicant intended the system in claims 18 and 19 to be fluid delivery systems. Appropriate correction is required.

With respect to claim 18 and 19, the applicant respectfully submits that claim 18 and 19 have been amended to recite a fluid delivery system, therefore, the applicant respectfully requests that the Examiner's objections to claims 18 and 19 be withdrawn and that claims 18 and 19 be allowed.

Rejections Under 35 USC § 103

Applicant respectfully points out that in order to combine references for an obviousness rejection, there must be some teaching, suggestion or incentives supporting the combination. *In re Laskowski*, 871 F.2d 115, 117, 10 U.S.P.Q. 2d 1397, 1399 (Fed. Cir. 1989). The mere fact that the prior art could be modified does not make that modification obvious unless the prior art suggests the desirability of the modification. *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). In addition, it is well established that Applicant's disclosure cannot

be used to reconstruct Applicant's invention from individual pieces found in separate, isolated references. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596 (Fed. Cir. 1988).

Claims 1, 4 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hynes (6447847) in view of Harlow (5645884). The Examiner stated:

Referring to claim 1, Hynes teaches a precision marking system to place reference markers on an object that comprises: a work surface (36) on which the object is placed, a multiple axis robot (20) , wherein positioning the multiple axis robot directed by a control system; and at least one end-effector (26) operable coupled to the multiple axis robot to place reference markers on the object, wherein the end-effector further comprises: a delivery system (See Column 4, lines 35-45) and a pick shaped stylus (See Column 2, line 63) coupled to a valve and wherein the pick shaped stylus has an internal orifice through which the ink is dispensed from the end-effector and onto the object (hole between 34 and needle, See Column 2, lines 59-62).

Hynes does not teach an object locator system to determine the location and orientation of the object and features within the object relative to the work surface. Harlow teaches an object locator system (98, Figure 20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hynes to include an object locator so that accurate marks can be provided on the object as taught by Harlow.

Hynes teaches a delivery system but does not teach an ink delivery system, Hynes does not teach a pulsed valve to regulate the supply of ink from the ink delivery system. Harlow teaches an ink delivery system and a pulsed valve to regulate the supply of ink from the ink delivery system (See Column 2, lines 60-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hynes to include an ink delivery system and a pulsed valve to regulate the supply of ink from the ink

delivery system in order to vary the amount of ink to be provided on the object as taught by Harlow.

Referring to claim 4, Hynes teaches the precision marking system wherein the pick shaped stylus provide radial clearance around the orifice. (See Figure 7 and Column 2, lines 60-65).

Referring to claim 8, Hynes teaches a multiple axis robot but does not teach that the robot comprises a 6-axis gantry robot. Harlow teaches a 6-axis gantry robot (See Figure 8 or 9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the robot of Hynes to include a 6-axis gantry robot to provide a robot to move in multiple axis so that a uniform coating can be applied to an object as taught by Harlow.

Referring to claim 9, Hynes teaches the precision marking system with reference markers (See Column 1, lines 55-58). Hynes does not teach reference markers that provide alignment information for additional objects to be mechanically coupled to the object. Examiner notes that the coating of Hynes can be used as reference markers that provide alignment information for additional objects to be mechanically coupled to the object.

Referring to claim 105 Hynes teaches the precision marking system with reference markers (See Column 1, lines 55-58). Hynes does not teach reference markers that provide part identification information. Examiner notes that the coating of Hynes can be used as reference markers that provide part identification information.

Referring to claim 11, Hynes teaches the precision marking system with reference markers (See Column 1, lines 55-58). Hynes does not teach that the reference markers provide assembly information to a user. Examiner notes that the coating of Hynes can be used as reference markers that provide assembly information to a user.

Referring to claim 12, Hynes teaches the precision marking system marking on an object (See Column 1, lines 11-12). Hynes does

not teach that the object further comprises an aircraft understructure. Harlow teaches that the object can be an aircraft understructure (See Column 3, line 43). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the object of Hynes with an aircraft understructure so that it can be marked as taught by Harlow.

Referring to claim 13, Hynes teaches the precision marking system wherein the end-effector is oriented to place reference markers on the surface of the object (See Column I, lines 59-63).

Referring to claim 14, Hynes teaches an end-effector oriented to place reference markers (See Column 1, lines 59-63). Hynes is capable of being oriented to place reference markers on walls located at an angle to the surface of the object.

Applicant respectfully submits that there is no motivation, teaching or suggestion to combine Haynes with Harlow. Therefore, the rejection on a combination of these references is inappropriate. Withdrawal of the rejection allowance of Claims 1, 4 and 8-14 respectfully requested.

With reference to claim 1, the Examiner states that end-effector 26 is “operably coupled to the multiple axis robot to place reference markers on the object”. The applicant respectfully submits that Haynes merely teaches a system and method of providing conformal coatings by employing multiple coating applicators. At no point does Haynes teach that the end-effector may be used to place reference markers on the object. Haynes teaches “dispensing of conformal coating on small circuit board components as well as the ability to spray conformal coatings across large areas of a circuit board.” (Haynes, column 1, lines 30-34). The applicant respectfully submits that the placement of a conformal coating which is a coating that adheres and conforms to the surface of the object greatly differs from the precise placement of reference markers as enabled by the end-effectors used in the present invention. The applicant reckons this difference to the wide placement of a coating such as paint by a spray can to the fine placement of ink using a fine instrument such as a pen. Thus, the applicant respectfully submits that Haynes does not teach end-effectors operable to place reference markers on the object.

The applicant further submits that Haynes fails to teach the shaped stylus which the Examiner cites as being presented in (Haynes column 2, line 63.) The applicant respectfully submits that the shaped stylus may be shaped like a shaped dental pick or instrument in order to greatly enhance the ability of the robot to place reference markers within confined areas. The dispensing valve 34 shown in Haynes within Figures 3, 4, 5, 6, and 7 all depict the dispensing valve as a narrow, cylindrical straight object which does not provide the shaped stylus taught in the present invention.

With respect to the Examiner's assertion that Harlow teaches an object locator system (98, Figure 20) the applicant respectfully submits that Harlow does not teach an object locator but merely teaches the presence of an external sensor 98 which may be used in a general feedback control system for safety interlocks. (Harlow, column 13, lines 35-39). No further mention of an object locator system 98 is mentioned in Harlow. Therefore, the applicant respectfully submits that the sensor 98 merely provides a safety interlock that may affect the operation of a coatings applicator rather than the exact location and orientation of an object as required by a system operable to place detailed reference markings. The applicant again submits that Harlow, like Haynes, teaches a coatings applicator, (i.e. the painting of ducks on a conveyor) as opposed to a precision markings applicator. The level of precision required in a reference marking system is orders of magnitude greater than that required of a coating applicator.

With respect to the Examiner's assertion that Haynes teaches a precision marking system where the pick-shaped stylus provides radial clearance about the orifice in Figure 7 in lines 60-65 of Haynes. The applicant respectfully submits that a shaped stylus is not taught by Haynes. Additionally, precision marking is not taught by Haynes because Haynes merely teaches the application via a round spray pattern to provide a conformal coating to an object on a belt conveyor. Figure 7 fails to show a pick-shaped stylus operable to provide precision marking within a confined space of the object. Rather, Figure 7 depicts that a coatings applicator may be tilted in order to apply coatings to the outer vertical surfaces of an object.

With respect to claim 8 and the Examiner's assertion that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the robot of Haynes to include a 6-axis gantry robot to provide a robot to move in multiple axes so that a uniform coating can be applied to an object as taught by Harlow;" the applicant respectfully submits that the application of a uniform coatings on an object is not the present invention.

Rather, the present invention teaches and claims the placement of precision referenced markings on an object.

With respect to the Examiner's assertion regarding claim 9 "that Haynes teaches the precision system with reference markers (see column 1, lines 55-58)" the applicant respectfully submits that lines 55-58 teach the application of a conformal coating. A conformal coating by definition is a coating that adheres and conforms to the surface of the object. This coating is unpatterned. Haynes fails to teach that the coating can be patterned to provide precision reference markings. The applicant respectfully traverses the Examiner's assertion that "the coatings of Haynes can be used for reference markings that provide alignment information for additional objects to be mechanically coupled to the object and that these coatings can be used as reference markings that provide part identification. The applicant further traverses the Examiner's assertion that "the coatings of Haynes can be used as reference markers that provide assembly information to a user".

Applicant further submits that neither Haynes or Harlow alone nor the combination of the two teaches or suggests make obvious the invention recited in Claims 1, 4 and 8-14 because the cited references do not disclose a precision reference marking system. Rather Haynes and Harlow merely teach a conformal coating system.

Therefore, the applicant respectfully requests that the examiner withdraw the rejection to Claims 1, 4 and 8-14 under 35 USC § 103(a) and allow Claims 1, 4 and 8-14.

Claim 2 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hynes (6447847) in view of Harlow (5645884) and further in view of Bajoux et al (5160939). The Examiner states:

Referring to claim 2, Hynes and Harlow teach all that is claimed as discussed above but they do not teach the precision marking system wherein the ink delivery system further comprises an ink reservoir operably coupled to a positive displacement pump. Bajoux teaches an ink delivery system further comprises an ink reservoir (48) operably coupled to a positive displacement pump (50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hynes and Harlow to include an ink

reservoir operably coupled to a positive displacement pump to supply the ink head properly with ink as taught by Bajoux.

Applicant respectfully submits that there is no motivation, teaching or suggestion to combine Haynes with Harlow and/or Bajoux. Therefore, the rejection on a combination of these references is inappropriate. Withdrawal of the rejection allowance of Claim 2 respectfully requested.

Applicant further submits that Haynes, Harlow and/or Bajoux alone nor any combination thereof teaches or suggests make obvious the invention recited in Claim 2 because, for the reasons cited above, Haynes and Harlow fail to disclose a precision reference marking system. Rather Haynes and Harlow merely teach a conformal coating system.

Therefore, the applicant respectfully requests that the examiner withdraw the rejection to claim 2 under 35 USC § 103(a) and allow claim 2.

Claim 3 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hynes (6447847) in view of Harlow (5645884) and further in view of Harenbrock (6499399). The Examiner states:

Referring to claim 3, Hynes and Harlow teach all that is claimed as discussed above. They do not teach the precision marking system of Claim 1, wherein the ink delivery system further comprises a positive pressure pneumatic reservoir delivery system. Harenbrock teaches an ink delivery system that further comprises a positive pressure pneumatic reservoir delivery system (See Column 3, lines 7-8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hynes and Harlow to include a positive pressure pneumatic reservoir delivery system to provide amounts of ink to the system using a gaseous medium as taught by Harenbrock.

Applicant respectfully submits that there is no motivation, teaching or suggestion to combine Haynes with Harlow and/or Harenbrock. Therefore, the rejection on a combination of these references is inappropriate. Withdrawal of the rejection allowance of Claim 3 respectfully requested.

Applicant further submits that Haynes, Harlow and/or Harenbrock alone nor any combination thereof teaches or suggests make obvious the invention recited in Claim 3 because, for the reasons cited above, Haynes and Harlow fail to disclose a precision reference marking system. Rather Haynes and Harlow merely teach a conformal coating system.

Therefore, the applicant respectfully requests that the examiner withdraw the rejection to claim 2 under 35 USC § 103(a) and allow claim 2.

Claims 5 and 6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hynes (6447847) in view of Harlow (5645884) and further in view of Bevirt et; al (6739448). The Examiner states:

Referring to claim 5, Hynes and Harlow teach all that is claimed as discussed above. They do not teach the precision marking system wherein the work surface comprises a shuttle table. Bevirt teaches a work surface which comprises a shuttle table (28). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hynes and Harlow to include a shuttle table support and transport large objects as taught by Bevirt.

Referring to claim 6, Hynes and Harlow teach all that is claimed as discussed above. They do not teach the precision marking system wherein the shuttle table further comprises series of vacuum support pins predetermined arrangement for a given object. Bevirt teaches a series of vacuum support pins (52) predetermined arrangement for a given object. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hynes and Harlow to include vacuum support pins to help in supporting the object on the table as taught by Bevirt.

Applicant respectfully submits that there is no motivation, teaching or suggestion to combine Haynes with Harlow and/or Bevirt. Therefore, the rejection on a combination of these references is inappropriate. Withdrawal of the rejection allowance of Claims 5 and 6 is respectfully requested.

Applicant further submits that Haynes, Harlow and/or Bevirt alone nor any combination thereof teaches or suggests make obvious the invention recited in Claims 5 and 6 because, for the

reasons cited above, Haynes and Harlow fail to disclose a precision reference marking system. Rather Haynes and Harlow merely teach a conformal coating system.

Therefore, the applicant respectfully requests that the examiner withdraw the rejection to claim 5 and 6 under 35 USC § 103(a) and allow claims 5 and 6.

Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hynes (6447847) in view of Harlow (5645884) and further in view of Pryor (6301763). The Examiner states:

Referring to claim 7, Hynes and Harlow teach all that is claimed as discussed above. They do not teach the precision marking system wherein the object locator system further comprises a vision end-effector to locate the object within a work envelope. Pryor teaches an object locator system further comprising a vision end-effector to locate the object within a work-envelope. (Figure 3A, 3 13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of Hynes and Harlow to include a vision end effector to help to locate the object with a camera and monitor for better accuracy of locating the object and specific points on the object.

Applicant respectfully submits that there is no motivation, teaching or suggestion to combine Haynes with Harlow and/or Pryor. Therefore, the rejection on a combination of these references is inappropriate. Withdrawal of the rejection allowance of Claim 3 respectfully requested.

Applicant further submits that Haynes, Harlow and/or Pryor alone nor any combination thereof teaches or suggests make obvious the invention recited in Claim 3 because, for the reasons cited above, Haynes and Harlow fail to disclose a precision reference marking system. Rather Haynes and Harlow merely teach a conformal coating system.

Therefore, the applicant respectfully requests that the examiner withdraw the rejection to claim 7 under 35 USC § 103(a) and allow claim 7.

Claim 15 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hynes (6447847) in view of Harlow (5645884) and further in view of Terada (5572103). The Examiner states:

Referring to claim 15, Hynes and Harlow teaches all that is claimed as discussed above. They do not teach the precision marking system further comprising a calibration system operable to calibrate each end-effector when selected. Terada teaches a system further comprising, a calibration system operable to calibrate each end-effector when selected. (See Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of Hynes and Harlow to include a calibration system so that the effector can have minimal errors due to the position of the robot.

Applicant respectfully submits that there is no motivation, teaching or suggestion to combine Haynes with Harlow and/or Terada. Therefore, the rejection on a combination of these references is inappropriate. Withdrawal of the rejection allowance of Claim 15 respectfully requested.

Applicant further submits that Haynes, Harlow and/or Terada alone nor any combination thereof teaches or suggests make obvious the invention recited in Claim 15 because, for the reasons cited above, Haynes and Harlow fail to disclose a precision reference marking system. Rather Haynes and Harlow merely teach a conformal coating system.

Therefore, the applicant respectfully requests that the examiner withdraw the rejection to claim 15 under 35 USC § 103(a) and allow claim 15.

Claim 16 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hynes (6447847) in view of Harlow (5645884) in further view of Gokey (5386762). The Examiner states:

Referring to claim 16, Hynes and Harlow teach all that is claimed as discussed above. They do not teach the precision marking system wherein the end-effector is stored within a storage rack when not operable coupled to the multiple axis robot. Gokey teaches that an end-

effector is stored within a storage rack when not operable coupled to the multiple axis robot (See Column 5, lines 11-20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the locator system of Hynes and Harlow such that an end-effector is stored within a storage rack when not operable coupled to the multiple axis robot so that the robot can retrieve the proper effector when desired as taught by Gokey. 12. Claims 17 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harlow (5645884) in view of Hynes (6447847).

Referring to claim 17, Harlow teaches An end-effector to place reference markers on an object that comprises: a fluid delivery system (92), a pulsed valve to regulate the supply of fluids from the fluid delivery system (See Column 2, lines 60-65); and a stylus (Fig 1 I) operable coupled to the pulsed valve to receive fluids from the pulsed valve, and wherein the pick shaped stylus has an internal orifice(154) through which the fluids are dispensed from the end-effector and onto the object.(See Figure 11).

Harlow does not teach that that stylus is pick shaped. Hynes teaches a pick shaped stylus (See Column 2, line 63). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the stylus of Harlow such that it is pick shaped so that it can mark in more detail as taught by Hynes.

Referring to claim 20, Harlow teaches the end-effector wherein the stylus provides radial clearance around the orifice. (See Figure 11).

Referring to claim 21, Harlow teaches the end-effector wherein the end-effector is operably coupled to a multi axis robot within a precision marking system. (See Figure 9).

Referring to claim 22, Harlow teaches the end-effector, wherein the precision marking system further comprises: a work surface (46) on which the object placed; an object locator system (98, Figure 20) to determine the location and orientation of the object and features within

the object relative to the work surface; and the multiple axis robot (Figure 9), wherein positioning the multiple axis robot is directed by a control system. (See Figure 20).

Referring to claim 23, Harlow teaches the end-effector wherein the fluids further comprise inks, paints, epoxy, or adhesives. (See Column 8, line 48). 13. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harlow (5645884) in view of Hynes (6447847) and further in view of Bajoux et al (5160939).

Referring to claim 18, Harlow and Hynes teach all that is claimed as discussed above but they do not teach the precision marking system wherein the ink delivery system further comprises an ink reservoir operably coupled to a positive displacement pump. Bajoux teaches an ink delivery system further comprises an ink reservoir (48) operably coupled to a positive displacement pump (50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hynes and Harlow to include an ink reservoir operably coupled to a positive displacement pump to supply the ink head properly with ink as taught by Bajoux.

Applicant respectfully submits that there is no motivation, teaching or suggestion to combine Haynes with Harlow and/or Gokey. Therefore, the rejection on a combination of these references is inappropriate. Withdrawal of the rejection allowance of Claim 16 respectfully requested.

The applicant respectfully submits that for the reasons presented above Haynes and Harlow do not teach a precision marking system. Therefore, the applicant respectfully submits that it is improper to combine Haynes and Harlow with Gokey to reach the present invention as claimed in claim 16, 17, 18, 20, 21, 22 and 23. For the reasons stated previously, the applicant respectfully submits that Haynes and Harlow failed to teach a precision marking system operable to place reference markers on an object. Haynes and Harlow failed to teach use of a pick-shaped stylus as an invention to reach into difficult access areas of the object as previously stated. The applicant respectfully traverses the examiner's insertion that column 2, line 63 teach a pick-shaped stylus. With respect to the examiner's insertion that Harlow teaches that the fluids may

comprise inks, paints, epoxy, or adhesives “(see column 8, line 48),” the applicant respectfully submits that column 8, lines 40 through 53 teach a duck being painted with two robot arms. Therefore, the applicant respectfully submits that paint is taught where paint may be broadly applied to the surface of a duck but fails to teach the placement of precision reference markings.

Applicant further submits that Haynes, Harlow and/or Gokey alone nor any combination thereof teaches or suggests make obvious the invention recited in Claim 16 because, for the reasons cited above, Haynes and Harlow fail to disclose a precision reference marking system. Rather Haynes and Harlow merely teach a conformal coating system.

The applicant respectfully requests that the rejections under 35 USC § 103(a) to claims 16, 17, 18, 20, 21, 22 and 23 be withdrawn and that the claims be allowed.

Claim 19 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Harlow (5645884) in view of Hynes (6447847) and further in view of Harenbrock (6499399). The Examiner states:

Referring to claim 3, Hynes and Harlow teach all that is claimed as discussed above. They do not teach the precision marking system of Claim 1, wherein the ink delivery system further comprises a positive pressure pneumatic reservoir delivery system. Harenbrock teaches an ink delivery system that further comprises a positive pressure pneumatic reservoir delivery system (See Column 3, lines 7-8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hynes and Harlow to include a positive pressure pneumatic reservoir delivery system to provide amounts of ink to the system using a gaseous medium as taught by Harenbrock.

Applicant respectfully submits that there is no motivation, teaching or suggestion to combine Haynes with Harlow and/or Harenbrock. Therefore, it is improper to combine the teachings of Haynes and Harlow with Harenbrock to reach a precision marking system having an ink delivery system as presented in claim 19. Therefore, the rejection on a combination of these references is inappropriate. Withdrawal of the rejection allowance of Claim 19 respectfully requested.